

1                   **DEFINING VARIABLES USED IN A MULTI-LINGUAL INTERNET**  
2                   **PRESENTATION**

3                   **TECHNICAL FIELD**

4                   The present invention relates to Internet conferences and  
5                   presentations. More particularly it relates to defining  
6                   variables used in a multi-lingual Internet presentation  
7                   system.

8                   **BACKGROUND**

9                   Today, audiences including thousands of participants in the  
10                  world can attend conferences and presentations broadcast by  
11                  the Internet network. During such a presentation, the  
12                  participant can view visual objects such as charts, slides,  
13                  images, graphics (generally in PowerPoint) and listen to  
14                  prerecorded audio recordings associated with each visual  
15                  object.

16                  In general, the speaker who is in charge of adding audio  
17                  comments to the visual object, does not assemble the final  
18                  deliverable contents but could, via access to the Internet  
19                  web pages, invoke the assembly process. The assembly is  
20                  normally done by a third party who has the skills in  
21                  creating the synchronized objects or an automatic system.

1 But there are many problems associated with creating a  
2 presentation having a synchronized audio recording to the  
3 visual objects. Thus, the speaker should have a ready access  
4 to equipment like a recording machine, a microphone or a PC  
5 with audio support to create the recording. An alternative  
6 is to go to a recording studio and to use facilities there,  
7 but this is not always immediately available and it is an  
8 expensive solution. If the user chooses to use a tape  
9 recorder, the third party which receives this media should  
10 have similar equipment available to replay the recording.

11 But, from its initial creation stage to its final published  
12 form, there can be many variants of the web deliverable  
13 presentation that end users view. During the initial stages  
14 of creation, there may be no audio available, so a set of  
15 web pages needs to be created so that the content creator  
16 can view the slides in a web format to proof read the  
17 contents. At some later stage, there may be added audio  
18 which uses generating another set of web pages which is  
19 different from the first one since it now includes audio.

20 If different types of audio streaming support are allowed,  
21 this again changes the format of the web pages and the  
22 number of web pages that have to be created.

23 Also, creators have differing requirements and as technology  
24 changes, and there may be other variables added. These  
25 variables can be the language of the audio, the different  
26 sizes of graphics, a survey, the presenter name, a title, a  
27 biography, an index of the slides, etc.

1 All these permutations consume large amounts of time in  
2 creating for each presentation its own unique set of HTML  
3 pages. Also, a simple change like an increase in the number  
4 of slides requires considerable rework. For example, "the  
5 export as HTML pages" function in a Freelance Graphic  
6 presentation will create 92 HTML pages for a 30 slide  
7 presentation. For Power Point, the similar function will  
8 create 72 HTML pages. Furthermore, these pages have only the  
9 basic navigation feature and do not include the required  
10 HTML functions for streaming audio.

11 SUMMARY OF THE INVENTION

12 Accordingly, an aspect of the invention is to achieve a  
13 method of defining previously all the variables to be used  
14 in a multi-lingual presentation without requiring HTML pages  
15 for each presentation for which different variables are  
16 used.

17 The invention provides therefore methods, apparatus and  
18 systems for defining variables to be used in a multi-lingual  
19 presentation system accessed by the Internet network wherein  
20 a plurality of visual objects such as charts or slides  
21 controlled by a third party in a server can be accessed by  
22 any user of the Internet network having a workstation. The  
23 visual objects are each associated with an audio recording  
24 in a language selected amongst several predetermined  
25 languages. This method includes in creating a control file  
26 including all the variables defining all the parameters of a  
27 presentation requested by a user of the Internet network,

1 the variables being defined in the control file previously  
2 to the presentation.

3 BRIEF DESCRIPTION OF THE DRAWINGS

4 The above and other aspects, features and advantages of the  
5 invention will be better understood by reading the following  
6 more particular description of the invention in conjunction  
7 with the accompanying drawings wherein :

8     ▪ Fig. 1 is a block-diagram representing the general  
9        context wherein the invention is implemented;

10    ▪ Fig. 2 is a block-diagram representing the third party  
11        server with the files that are transferred to the user  
12        workstation via the Internet network; and

13    ▪ Fig. 3 represents a flow chart of the various steps used  
14        by the methods according to the invention when a user  
15        gets access to the third party server.

16 DETAILED DESCRIPTION OF THE INVENTION

17 Referring to Fig. 1, showing an embodiment which assumes  
18 that a third party responsible for a presentation system has  
19 already generated charts or slides to be presented to the  
20 users connected by their workstations 10-1, 10-2, 10-3, to  
21 the Internet network 12. The author (or a speaker) has then  
22 to record audio files each being associated with each chart

1 or slide. The author has at his disposal a workstation 14  
2 connected to the Internet network 12 and a telephone set 16  
3 connected to the Public Switched Network (PSN) 18.

4 The author of the presentation is provided with an  
5 identification number ID, a password and a telephone number  
6 (via web pages, e-mail or conversation with the third  
7 party). When he wants to record the audio recordings, he  
8 calls the third party server 20. At this time, the speaker  
9 is prompted to enter his ID by means of workstation 14.

10 The ID entered by the author determines the language to be  
11 used, the naming convention for the file and the location  
12 for the recordings. In general, the third party stores the  
13 objects and the corresponding audio files in the same  
14 location as that specified by the ID in a content directory.  
15 Thus, for example, the ID may include the number 6666 that  
16 is the directory name in which the final recordings are to  
17 be stored.

18 During creation of the charts or slides with synchronized  
19 audio, the author is asked several questions regarding the  
20 presentation. According to the main feature of the  
21 invention, this information is stored in a control file,  
22 preferably a javascript file which can be named "INI.JS" for  
23 example, and includes the title of the presentation, the  
24 number of slides, the duration of the presentation, the  
25 language used, the date of last update, the first slide, the  
26 abstract, the biography ... ; that is all the variables used  
27 by the supporting HTML which are then accessed by any user  
28 of the presentation.

1 An example of code included in the control file with an  
 2 explanation of the function in italics is given hereafter :

Code	Description
AudioStatus="rec"	<i>audio has been recorded, so enable the audio streaming option.</i>
BambaJava="yes";	<i>provide the option of Bamba for Java audio streaming</i>
BambaPlugin="yes";	<i>provide the option of Bamba Plugin audio streaming</i>
commonDir="/common_v2_0/";	<i>the location where the html pages are located</i>
cutPoints="6,12,18,24,30,36";	<i>the slide numbers for the start of a new part (chapter)</i>
Duration="51";	<i>the time/duration of the audio (in minutes)</i>
ExternalPres="no";	<i>change the look and feel, plus colours to that of the Internet Server if 'yes'</i>
FoilExtension="jpg";	<i>the file extension name of the slide.</i>
FoilName="slide";	<i>the name prefix of the slide (in this example, slides will be named slide1.jpg, slide2.jpg, etc)</i>
Hal="no";	<i>Do not provide the option of HotAudio audio streaming</i>
JbCodebase="/JavaBamba/";	<i>the location of the codebase files required for Bamba for Java audio streaming</i>
language[1]="ENG,English";	<i>The language of the audio file and</i>

3

	<i>hence the language that should be used for the navigation controls</i>
lastUpdate="23/05/00 17:29:05"	<i>Date and time when the presentation was last modified</i>
multipleResolutions="yes";	<i>Provide the option of large or small graphics.</i>
presAbstract="A summary of the business to business opportunity with e-commerce. Outlines the opportunity, challenges, and the strategy for addressing this opportunity.";	<i>Abstract for this presentation.</i>
Email="heasmanb@be.ibm.com"; (if it has to be a real address then make it mine.	Email address of the presenter
presName="Big . . . Really BIG - The Business to Business Opportunity";	Name of this presentation
questionURL="noquestion"	Does the presentation have a feedback feature (send questions to the presenter)?
showIcons="yes";	Show icons or text-only links?
speakerBio=" Brian: has almost 15 years experience with IBM, and has been in e-business marketing since its inception at IBM.	Biography of the presenter
speakerName="Brian";	Name of the presenter
SurveyURL="nosurvey";	Does the presentation have a feedback feature (complete a survey)?
TotalSlides=42	<i>Number of slides in this presentation.</i>
ReturnURL[1]="Online Library", http://Our_server.ibm.com/";	<i>Label and URL for a link</i>

1 As shown in Fig. 2, the third party server 20 includes the  
2 content directory 22 which contains control file 24. The  
3 content directory also contains the graphic and audio files  
4 (not shown) and two generic files INDEX.HTML 26 and  
5 CONTAINER.HTML 28. But other generic files are contained in  
6 a common directory 30. Such generic files are INDEX.JS 32  
7 and CONTAINER.JS 34 if they are javascript files.

8 Note that a reason the two generic HTML files are in the  
9 content directory 22 is that the user can link to them via a  
10 web browser. Other than loading the control file and  
11 specific files in the common directory, there is no  
12 functionality in these files. The real functionality is in  
13 the files within the common directory.

14 When an end user wants to have the presentation in the user  
15 workstation 10, the steps to be used are illustrated by the  
16 flow chart represented in Fig. 3. First, the user accesses  
17 INDEX.HTML (step 40) which is the introductory page  
18 describing the presentation and the speaker. Such an  
19 introductory page includes an example any combination of  
20 items in the following information :

- 21 - Title of Presentation
- 22 - Presenters Name
- 23 - Number of Slides
- 24 - Duration of the audio
- 25 - Language/languages
- 26 - Abstract of Presentation
- 27 - Biography of Presenter
- 28 - Picture of Presenter
- 29 - Choice of large or small graphics

1           - Which part (Chapter) they wish to start with.  
2           - Audio Streaming Options with or without icons.

3       In accessing INDEX.HTML, the control file (INI.JS) is  
4       automatically downloaded in the user workstation as well as  
5       INDEX.JS that is within common directory 30 in order to  
6       build the index page (step 42). The file INDEX.JS includes  
7       the real functionality needed to build the index page. The  
8       variables in the control file are then used to :

9           1. Complete INDEX.JS  
10          e.g. to display the title of presentation, INDEX.JS  
11          includes the following line of code :  
12          Document.write('<H3>' 4+presName+'</H3<')  
13          The presName variable from the control file is then  
14          used to complete this line of code with the title of  
15          the presentation.  
16           2. Allow/disallow access to certain functions/features  
17          e.g. the index.JS has the possibility to let the user  
18          start the presentation using different streaming  
19          technologies. All options are not necessarily shown,  
20          only those that are listed in the control file.

21       Once the index page is downloaded, the user can read the  
22       details on the presentation and the speaker and make certain  
23       choices in regard to the presentation he is about to start  
24       (step 44). These choices include the language being used,  
25       the size of foil graphics, the part number at which to start  
26       the presentation and the technology in which to listen to  
27       the audio.

1 Once the user has indicated he wants to start the  
2 presentation using certain options, the file CONTAINER.HTML  
3 is sent in the browser for the userworkstation. User choices  
4 are passed (step 46) by adding them in the URL (hash  
5 statement).

6 Then, the access to CONTAINER.HTML automatically loads the  
7 control fileINI.JS and the file CONTAINER.JS that is within  
8 common directory 30. Similar to step 42, the control file is  
9 used to build CONTAINER.JS and allow/disallow functions and  
10 features (steps 48). The users choices that were passed in  
11 the URL are also used for this purpose. As an example, the  
12 control file can define the presentation as being divided in  
13 three parts : charts 1-5, charts 6-10 and charts 11-15. As a  
14 result the index page will offer the user the option to  
15 select at which part he wants to start the presentation  
16 (e.g. part 2). His choice is then passed in the URL to  
17 CONTAINER.HTML. The latter file looks at the control file to  
18 determine which charts are included in part 2 and displays  
19 only those charts.

20 Once the container page is completely built, the user will  
21 have access to certain functions as defined in the control  
22 file (step 50). Some of these functions will in return load  
23 HTML and/or JS files that are in common directory 30. As  
24 these files are loaded within a specific frameset, they can  
25 access the variables in the control file by reading them  
26 from COINTAINER.JS which is its parent. As an example, in  
27 the control file, the variable AskaQuestion is set to "yes".  
28 This results in the container displaying a button that the  
29 user can press to bring up "Question.HTML", which is a file

1 in the common directory. This file will then read certain  
2 variables from the control file, such as e-mail address, and  
3 use this information to customize the otherwise generic  
4 Question.HTML file.

5 thus in an embodiment of the present invention is a method,  
6 apparatus and/or system to store the complementary  
7 information (basic information being the slides and  
8 associated audio recordings) in a control file, so that a  
9 very limited number of specially written HTML pages can use  
10 the variables within this file to provide the end result. By  
11 using this approach, the work associated with creating a  
12 presentation or the end viewed result is all included in  
13 this file as variables. Only one HTML Page per audio  
14 streaming type is used with the information needed for this  
15 page being stored as variables in the control file. Note  
16 also that the same HTML pages can be used for all  
17 presentations, the control file being the only file which is  
18 different.

19 Again, there is one HTML page which performs the function of  
20 the introductory page. This page gives an overview of what  
21 the presentation includes. On selecting an audio streaming  
22 option, the user enters a second page. There is one HTML  
23 page for every audio streaming option. For each additional  
24 function like Help, Survey, Ask a question, etc. there is a  
25 single HTML page per language being used. On inputting the  
26 second page, the user sees the graphics and will hear the  
27 first audio recording. Depending on the definition of the  
28 variables in the control file, the user will see a series of  
29 buttons for Help, Survey, et. Note that, since all the

1    features and functions are stored in the control file, it is  
2    possible to make for example the Help function become an  
3    intelligent Help screen. Since the Help HTML Page can be  
4    made to read the control file, it can predetermine what the  
5    user has as options and only provide Help for the options  
6    visible.

7    The present invention can be realized in hardware, software,  
8    or a combination of hardware and software. A visualization  
9    tool according to the present invention can be realized in a  
10    centralized fashion in one computer system, or in a  
11    distributed fashion where different elements are spread  
12    across several interconnected computer systems. Any kind of  
13    computer system - or other apparatus adapted for carrying  
14    out the methods and/or functions described herein - is  
15    suitable. A typical combination of hardware and software  
16    could be a general purpose computer system with a computer  
17    program that, when being loaded and executed, controls the  
18    computer system such that it carries out the methods  
19    described herein. The present invention can also be  
20    embedded in a computer program product, which comprises all  
21    the features enabling the implementation of the methods  
22    described herein, and which - when loaded in a computer  
23    system - is able to carry out these methods.

24    Computer program means or computer program in the present  
25    context include any expression, in any language, code or  
26    notation, of a set of instructions intended to cause a  
27    system having an information processing capability to  
28    perform a particular function either directly or after

1 conversion to another language, code or notation, and/or  
2 reproduction in a different material form.

3 Thus the invention includes an article of manufacture which  
4 comprises a computer usable medium having computer readable  
5 program code means embodied therein for causing a function  
6 described above. The computer readable program code means  
7 in the article of manufacture comprises computer readable  
8 program code means for causing a computer to effect the  
9 steps of a method of this invention. Similarly, the present  
10 invention may be implemented as a computer program product  
11 comprising a computer usable medium having computer readable  
12 program code means embodied therein for causing a function  
13 described above. The computer readable program code means  
14 in the computer program product comprising computer readable  
15 program code means for causing a computer to effect one or  
16 more functions of this invention. Furthermore, the present  
17 invention may be implemented as a program storage device  
18 readable by machine, tangibly embodying a program of  
19 instructions executable by the machine to perform method  
20 steps for causing one or more functions of this invention.

21 It is noted that the foregoing has outlined some of the more  
22 pertinent objects and embodiments of the present invention.  
23 This invention may be used for many applications. Thus,  
24 although the description is made for particular arrangements  
25 and methods, the intent and concept of the invention is  
26 suitable and applicable to other arrangements and  
27 applications. It will be clear to those skilled in the art  
28 that modifications to the disclosed embodiments can be

1       effected without departing from the spirit and scope of the  
2       invention.

3       The described embodiments ought to be construed to be merely  
4       illustrative of some of the more prominent features and  
5       applications of the invention. Other beneficial results can  
6       be realized by applying the disclosed invention in a  
7       different manner or modifying the invention in ways known to  
8       those familiar with the art.